Author Index for Volume 212

Alam, M., 173
Amaratunga, G. A. J., 232
Anthony, T. R., 1

Babu, S. V., 251
Baglio, J. A., 180
Baik, Y.-J., 104, 156
Bakker, J., 282
Banholzer, W. F., 1
Belton, D. N., 68, 193
Beulens, J. J., 282
Bewilogua, K., 245
Borra, R. T., 274
Bozhko, A., 274
Buuron, A. J. M., 282

Cappelli, M. A., 206
Celii, F. G., 140
Chan, K. K., 232
Chang, H.-M., 127
Chang, J. M., 91, 96
Chen, H., 169
Cheng, D. G., 220
Chow, L. C., 25
Collins, C. B., 216

Das, K., 19
Davanloo, F., 216
David, M., 251
Dennig, P. A., 63
DiGregorio, J., 169
Dillon, R. O., 169
Dorfman, V. F., 267, 274
Dreifus, D. L., 19

Elinson, V. M., 226
Ellis, C., 56
Ermakov, M. G., 226
Ermakova, O. N., 226
Eun, K. Y., 104, 156

Farnsworth, B. C., 180
Feng, Z., 35
Field, J. E., 35
Furtak, T., 169

Gasworth, S. M., 186
Glass, J. T., 19
Glesener, J., 81
Glumac, N. G., 122
Gold, C. J., 169
Goodwin, D. G., 122
Goto, Y., 164
Groot, P., 282
Guo, F. S., 133
Guo, H., 173
Guo, W.-T., 137

Hamill, G., 180
Hankin, S., 180
Harris, S. J., 193, 201
Herchen, H., 206
Hirata, A., 43
Hong, F. C.-N, 127
Hsieh, J.-C., 127
Hwang, J.-H., 127

Jander, D. R., 216
Johnson, N. M., 63
Johnson, R. W., 96

Kaneko, R., 256, 262
Kawarada, M., 164
Khan, I., 274
Kim, J. W., 104
Kirpilenko, G., 274
Kupfer, H., 245
Kurihara, K., 164
Kurokawa, H., 240

Landstrass, M. I., 206
Lee, S. Y., 56
Lee, T. J., 216
Li, J.-Q., 137
Lu, F. X., 220

Mitani, T., 240
Miyake, S., 256, 262
Miyamoto, T., 262
Miyata, K., 19
Morrish, A., 81
Moyer, M. D., 206
Murakawa, M., 262
Mühling, I., 245

Nakaue, H., 240
Nielsen, M. L., 169

Ohtake, N., 112
O'Neil, D., 180

Padiyath, R., 251
Pais, M. R., 25
Park, H., 216
Pehrsson, P. E., 81
Perov, P. I., 226
Phillips, R., 30
Plano, M. A., 206
Polyakov, V. I., 226
Pool, F. S., 150
Prins, J. F., 11
Purdes, A. J., 140
Pypkin, B. N., 274

Ramesham, R., 56, 96
Rau, B., 245
Rich, D. H., 150
Richter, F., 245
Rodichev, D., 274
Roppel, T., 56, 96
Rother, B., 245

Sasaki, K., 164
Schmieg, S. J., 68
Schram, D. C., 282
Schumacher, D., 245
Sehmbey, M. S., 25
Seth, J., 251
Shing, Y. H., 150
Shiomi, H., 63
Silva, S. R. P., 232
Skotheim, T. A., 274
Sleptsov, V. V., 226
Srivatsa, A. R., 274
Stevenson, D. A., 63
Sun, J. B., 220
Sun, Y.-N., 137

Tokura, H., 43, 49
Tzeng, Y., 30, 35, 91

Venkatesan, V., 19

Watanabe, S., 262
Wei, J., 30, 91
Weiner, A. M., 201
White, Jr., D., 140
Wu, J.-J., 127

Yang, B. X., 220
Yang, C.-F., 49
Ye, R. Z., 220
Yonezawa, T., 240
Yoon, D. N., 104
Yoshikawa M., 43, 49, 112
Yoshio, H., 240
You, J. H., 216
Yu, S. C., 133
Yu, W. X., 220
Yun, H.-Z., 137

Zhang, H., 274

Subject Index of Volume 212

Adhesion
- characterization of polycrystalline diamond thin films grown on various substrates, 96
- mechanical and adhesion properties of amorphic diamond films, 216

Amorphous materials
- electrical and photoelectrical characteristics of heterostructures with amorphous carbon films, 226
- preparation and properties of amorphous carbon and hydrocarbon films, 245

Boron
- ion implantation and diamond: some recent results on growth and doping, 11

Boron nitride
- tribological study of cubic boron nitride film, 262

Carbon
- applications of diamond-like carbon films to electronic components, 240
- effect of diluent gases added during deposition on the etching characteristics of diamond-like carbon films, 251
- electrical and photoelectrical characteristics of heterostructures with amorphous carbon films, 226
- electronic properties of semiconducting diamond-like carbon–diamond, 232
- low hydrogen content diamond-like carbon coatings for KCl optics for high power industrial CO_2 lasers, 220
- microtribological properties and potential applications of hard, lubricating coatings, 256
- plasma deposited carbon films as a possible means for divertor repair, 282
- preparation and properties of amorphous carbon and hydrocarbon films, 245

Chemical vapour deposition
- chemical vapor deposition diamond nucleation induced by sp^2 carbon on unscratched silicon, 81
- deposition of diamond films with controlled nucleation and growth using hot filament CVD, 91
- diamond growth on a (100)-type step, 193
- diamond growth rates *vs.* acetylene concentrations, 201
- diamond IR optical coatings by hot filament chemical vapor deposition, 137
- first-order Raman scattering in homoepitaxial chemical vapor deposited diamond at elevated temperatures, 206
- influence of substrate treatments on diamond thin film nucleation, 63
- model for the hydrogen atom developed in a microwave plasma jet under diamond synthesis conditions, 186
- nucleation effects and characteristics of diamond film grown by arc discharge plasma jet chemical vapor deposition, 112
- nucleation of chemically vapor deposited diamond on platinum and nickel substrates, 68
- smoothing of chemically vapour deposited diamond films by ion beam irradiation, 43
- solid particle impact of CVD diamond films, 35
- strain in CVD diamond films: effects of deposition variables, 173
- structural characteristics of diamond films prepared with thermal chemical vapor deposition processes, 133
- studies of stress related issues in microwave CVD diamond on ⟨100⟩ silicon substrates, 180
- study on the polishing of chemically vapour deposited diamond film, 49

Chloride
- low hydrogen content diamond-like carbon coatings for KCl optics for high power industrial CO_2 lasers, 220

Coatings
- microtribological properties and potential applications of hard, lubricating coatings, 256

Contacts
- review of the electrical characteristics of metal contacts on diamond, 19

Deposition process
- plasma deposited carbon films as a possible means for divertor repair, 282
- strain in CVD diamond films: effects of deposition variables, 173
- thermodynamic and experimental study of diamond deposition from a CH_4-H_2 gas mixture, 104

Deposition processes
- diamond synthesis in a low-pressure flat flame, 122
- growth of diamond film by plug-flow flat flame method, 127
- preparation and properties of amorphous carbon and hydrocarbon films, 245

Electrical devices
- applications of diamond-like carbon films to electronic components, 240

Electrical properties
- review of the electrical characteristics of metal contacts on diamond, 19
- diamond-like nanocomposites (DLN), 267
- electrical and photoelectrical characteristics of heterostructures with amorphous carbon films, 226
- electronic properties of semiconducting diamond-like carbon–diamond, 232
- ion implantation and diamond: some recent results on growth and doping, 11

Electron spin deposition
- influence of substrate treatments on diamond thin film nucleation, 63

Epitaxy
- first-order Raman scattering in homoepitaxial chemical vapor deposited diamond at elevated temperatures, 206

Etching
- effect of diluent gases added during deposition on the etching characteristics of diamond-like carbon films, 251

Fourier transform infrared spectroscopy
- high quality flame-deposited diamond films for IR optical windows, 30

Graphite
- plasma deposited carbon films as a possible means for divertor repair, 282

Growth mechanisms
- diamond growth rates *vs.* acetylene concentrations, 201
- growth of diamond films on stainless steel, 169
- habit modification of gas phase synthesized diamond particles in the C–H–O system, 156
- model for the hydrogen atom developed in a microwave plasma jet under diamond synthesis conditions, 186

Growth mechanisms (continued)
nucleation of chemically vapor deposited diamond on platinum and nickel substrates, 68
thermodynamic and experimental study of diamond deposition from a CH_4–H_2 gas mixture, 104

Hardness
mechanical and adhesion properties of amorphic diamond films, 216
Heat treatment
study of diamond laminated surfaces in evaporative spray cooling, 25
Heterostructures
electrical and photoelectrical characteristics of heterostructures with amorphous carbon films, 226

Ion bombardment
smoothing of chemically vapour deposited diamond films by ion beam irradiation, 43
Ion implantation
ion implantation and diamond: some recent results on growth and doping, 11

Lattice parameters
diamond properties as a function of isotopic composition, 1
Luminescence
low-pressure microwave plasma nucleation and deposition of diamond films, 150

Nanostructures
diamond-like nanocomposites (DLN), 267
diamond-like nanocomposites: electronic transport mechanisms and some applications, 274
Nucleation
chemical vapor deposition diamond nucleation induced by sp^2 carbon on unscratched silicon, 81
deposition of diamond films with controlled nucleation and growth using hot filament CVD, 91
influence of substrate treatments on diamond thin film nucleation, 63
low-pressure microwave plasma nucleation and deposition of diamond films, 150
nucleation effects and characteristics of diamond film grown by arc discharge plasma jet chemical vapor deposition, 112
nucleation of chemically vapor deposited diamond on platinum and nickel substrates, 68
studies of stress related issues in microwave CVD diamond on ⟨100⟩ silicon substrates, 180
thermodynamic and experimental study of diamond deposition from a CH_4–H_2 gas mixture, 104

Optical coatings
diamond IR optical coatings by hot filament chemical vapor deposition, 137
high quality flame-deposited diamond films for IR optical windows, 30
low hydrogen content diamond-like carbon coatings for KCl optics for high power industrial CO_2 lasers, 220

Optical properties
diamond IR optical coatings by hot filament chemical vapor deposition, 137
diamond properties as a function of isotopic composition, 1
low hydrogen content diamond-like carbon coatings for KCl optics for high power industrial CO_2 lasers, 220

Physical vapour deposition
preparation and properties of amorphous carbon and hydrocarbon films, 245
Plasma processing
deposition of smooth, oriented diamond films using microwave plasma chemical vapor deposition, 140
formation of functionally gradient diamond films, 164
low-pressure microwave plasma nucleation and deposition of diamond films, 150
Potassium
low hydrogen content diamond-like carbon coatings for KCl optics for high power industrial CO_2 lasers, 220

Raman spectroscopy
deposition of smooth, oriented diamond films using microwave plasma chemical vapor deposition, 140
diamond synthesis in a low-pressure flat flame, 122
first-order Raman scattering in homoepitaxial chemical vapor deposited diamond at elevated temperatures, 206
high quality flame-deposited diamond films for IR optical windows, 30
low-pressure microwave plasma nucleation and deposition of diamond films, 150

Schottky barrier
diamond-like nanocomposites: electronic transport mechanisms and some applications, 274
Sensors
thin film diamond microstructures, 56
Silicon
microtribological properties and potential applications of hard, lubricating coatings, 256
Stress
mechanical and adhesion properties of amorphic diamond films, 216
strain in CVD diamond films: effects of deposition variables, 173
studies of stress related issues in microwave CVD diamond on ⟨100⟩ silicon substrates, 180
Structural properties
structural characteristics of diamond films prepared with thermal chemical vapor deposition processes, 133
Surface defects
chemical vapor deposition diamond nucleation induced by sp^2 carbon on unscratched silicon, 81
diamond growth on a (100)-type step, 193
Surface morphology
a study of diamond laminated surfaces in evaporative spray cooling, 25
characterization of polycrystalline diamond thin films grown on various substrates, 96
deposition of diamond films with controlled nucleation and growth using hot filament CVD, 91
deposition of smooth, oriented diamond films using microwave plasma chemical vapor deposition, 140
diamond synthesis in a low-pressure flat flame, 122
formation of functionally gradient diamond films, 164
growth of diamond film by plug-flow flat flame method, 127
growth of diamond films on stainless steel, 169
habit modification of gas phase synthesized diamond particles in the C–H–O system, 156
nucleation effects and characteristics of diamond film grown by arc discharge plasma jet chemical vapor deposition, 112
plasma deposited carbon films as a possible means for divertor repair, 282
solid particle impact of CVD diamond films, 35

Surface structure
thin film diamond microstructures, 56

Tribology
microtribological properties and potential applications of hard, lubricating coatings, 256
study on the polishing of chemically vapour deposited diamond film, 49
tribological study of cubic boron nitride film, 262

X-ray diffraction
deposition of smooth, oriented diamond films using microwave plasma chemical vapor deposition, 140
high quality flame-deposited diamond films for IR optical windows, 30
strain in CVD diamond films: effects of deposition variables, 173
studies of stress related issues in microwave CVD diamond on ⟨100⟩ silicon substrates, 180

X-ray photoelectron spectroscopy
nucleation of chemically vapor deposited diamond on platinum and nickel substrates, 68